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10/814,370	03/31/2004	Michael D. Kotzin	CS90105	5481

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MOTOROLA INC
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EXAMINER

TSEGAYE, DANIEL

ART UNIT	PAPER NUMBER
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2629

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08/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,370

Applicant(s)

KOTZIN ET AL.

Examiner

DANIEL TSEGAYE

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/28/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/31/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 4-1206

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. *The amendment filed on 06/08/2007 has been entered and considered by the examiner.*

Claim Objections

2. Claim 1 is objected to because of the following informalities:
Claim 1, "a operational mode" should be changed -- an operational mod --.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9,13,15-20,21,22 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hinckley et al. (US Pub# 2002/0167488).

As to claim 1, Hinckley disclose a method for sensing the context of electronic device (300) including:

receiving contact information from a subset of touch sensors (see Fig. 2 (304,306)) of a plurality of touch sensors (e.g., temperature sensor, ambient light sensor) of the electronic device (see, [0024]);

Correlating the touch sensor contact information to a predetermined grip (see, [0024], [0026]); and

determining an operational mode indicated by the correlated predetermined grip (see,[0027], [0029]).

As to claim 18, Hinckley discloses the method comprising receiving touch sensor information from at least a subset of touch sensors (e.g. 254, 256) for a plurality of touch sensors (254,256,304,306) (see [0024]); determining a contact pattern (user's touches device) which corresponds to the subset of touch sensors (see [0026]); receiving contextual information (e.g., tilt, proximity) at the device (see [0017], [0024]...if the device 300 is being... that can provide useful contextual information); determining the position of the device (e.g., device senses the proximity) relative to a foreign object (i.e., a user) based on the contact pattern (see [0031].... Generally, such gesturing includes positioning device 200 near the user's ear at an appropriate tilt angle); determining a function operational (e.g., function of "talk") in response to the position of the device (e.g., device position near user's ear) and the received contextual information (e.g., tilt); and executing the function (see [0028-0029], [0031]).

As to claim 21, Hinckley discloses receiving a plurality of input signals (i.e., sensing signals) from corresponding capacitive touch sensors carried on a housing of the wireless communication device (300)(see [0017], [0023]); determining a touch pattern (user's touches device 300) corresponding to the plurality of input signals received from the capacitive touch sensors (see [0017].... The sensing signal from the proximity sensor(s) 262.... to analog inputs are connected to analog- to- digital converters with in PIC microprocessor 252.); determining a relative position (e.g. device senses proximity such as position near user's ear) to a foreign object (user); and

activating an event (e.g. talk) in response to receiving the plurality of input signal and the motion (*tilt*) input signal (see [0031] ... Such gesturing including positioning device 200 near user's ear at an appropriate tilt angle).

As to claim 22, Hinckley discloses a electronic device comprising; a housing (300); a microprocessor (202); a plurality of touch sensors carried on the housing an activatable from the exterior of the housing (see [0024]....touch sensors 304 and 306...), wherein the location of each touch sensor of the plurality of touch sensors is configured to determine the position of foreign objects relative to the housing (see [0023] ... sensor 302 can provide an indication of proximity between device 300 and a user); and a context sensor module (252,250,208) coupled to the microprocessor and receiving input from the plurality of touch sensors (see [0016]... input device are connected to processor 202 through various port such as serial port 250 or through communication interface 208).

As to claims 2 and 15, Hinckley discloses, the step of determining a contextual characteristic of the device (300) in relation to a foreign object in response to receiving the contact information (see [0017], [0024]).

As to claims 3 and 16, Hinckley discloses the step of determining a contextual characteristic of the device in relation to a user (see [0026])

As to claims 4 and 17, Hinckley disclose the step of receiving contact information further comprises selectively receiving a plurality of signals from a plurality of touch sensors which represent the contact pattern (see [0017]... The sensing signals from.... are provided through respective.... Analog input s of PIC micro-processor 252).

As to claim 5, Hinckley disclose the step of receiving contact information further comprises selectively receiving a signal from a context sensors which senses the proximity of a foreign object (see [0023]).

As to claim 6, Hinckley discloses the step of determining a contextual characteristic further comprises receiving signals from a context sensor which is any one of an infrared sensor, an ambient light sensor, a camera, a microphone, a radio frequency signal sensor, radio system signal strength detection circuit (see [0024]).

As to claim 7, Hinckley discloses the step of executing a function based on the received signal from the context sensor and the contact information (see [0031]).

As to claim 8, Hinckley discloses the contextual characteristic is one of a plurality of predetermined configurations in which the device is held by the user (see [0026]).

As to claim 9, Hinckley discloses executing a first function (see [0026]).... If the mobile device is being held, then control passes to block 404...), which corresponds to a first contact pattern (see [0026]...if it is currently held.... if the mobile device is being touched) and in response the device operating in a first operation mode (see [0033]...If the mobile device is being held when a call arrives at step 402, the device enters a notification mode).

As to claim 13, Hinckley discloses a user interface is one of a display a speaker, haptic feedback device, a microphone, a camera, a keypad, or a touch screen (see [0015]).

As to claim 19, Hinckley discloses, determining the position of the device relative to a user's body (see [0024]).

As to claim 20, Hinckley discloses, receiving touch sensor information from at least a subset of touch sensors (see [0024] ... Sensors 304 and 306 provide an indication of whether device 300 is being touched.) for a plurality of touch sensors that indicate that a user is holding the device in a first gripping configuration (see [0026]... determines if it is currently held determines if the mobile device is being touched).

As to claim 25, Hinckley discloses the touch sensor is a capacitive touch sensor (see [0017 and 0023]).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 10-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley in view of Gordon (U.S. Pat# 5,884,156).

As to claim 10, Hinckley teaches the claim 1 and 9, but doesn't teaches adjusting a level of a user interface of the device to a first level in response to a first contact pattern and a first operation mode, and adjusting the user interface to a second level in response to a second contact pattern and the first operation mode. Gordon teaches wherein adjusting a level of a user interface of the device to a first level (high volume level) in response to a first contact pattern (first grip of mobile device positioned not near the user ear) and a first operation mode (dispatch radio mode), and adjusting the

user interface (e.g., 16&18) to a second level (low volume level) in response to a second contact pattern (e.g. pressing a keypad, see col. 3, lines 43-47) and the first operation mode (see col. 5, lines 1-27).

Therefore, it would have been obvious to one of ordinary skill in the art at time the invention was made to have provided adjusting a level of a user interface of the device to a first level in response to a first contact pattern and a first operation mode, and adjusting the speaker to a second level in response to a second contact pattern and the first operation mode as taught by Gordon to a method for sensing the context of electronic device of Hinckley because adjusting audio volume levels of Gordon would provide diverse optional capabilities of high audio signal using two speakers, thereby a user can hear the audio signal both sides of the device (see col. 1, lines 35-40 of Gordon).

As to claim 11, note the discussion of Hinckley above, Hinckley do not teach activating a first user interface in response to a first contact pattern and a first operation mode, and deactivating (disable) the first user interface in response to a second contact pattern and the first operation mode. Gordon teaches activating a first user interface in response to a first contact pattern and a first operation mode, and deactivating (disable) the user interface in response to a second contact pattern and the first operation mode (see col.5, lines 22-27).

As to claim 12, Hinckley discloses the user interface is one of a display a speaker, haptic feedback device, a microphone, a camera, a keypad, or a touch screen (see [0015]).

As to claim 14, note the discussion of Hinckley above. Hinckley does not teach turning on a speaker phone (18) in response to a first contact pattern and a first operation mode, and turning on an earphone speaker (16) in response to a second contact pattern and the first operation mode. Gordon teaches turning on a speaker phone (18) in response to a first contact pattern and a first operation mode, and turning on an earphone speaker (16) in response to a second contact pattern and the first operation mode (see col.5, lines 19-27), and also (see col.6, lines 44-52).

7. Claims 23, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinckley in view of Wakamatsu (U.S. Pat# 6,725,064).

As to claim 23, Hinckley teaches the claim 1, but doesn't teach a first touch sensor is on a first side of the device. Wakamatsu teaches wherein a first touch sensor (41) is on a first side of the device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the teaching of touch sensor being on a first side of the device as taught by Wakamatsu to the electronic device of Hinckley because the touch sensors detect user's manipulation operation of the electronic device such as turn on, turn off the illumination of the display and the keys. That is the illumination of keys and display can be turned off during the device is not in use, thereby saving the energy of a built-in battery (see col. 1 lines 47-53).

As to claim 24, note the discussion of Hinckley above Hinckley do not teaches a second touch sensor is carried on a second side of the housing. Wakamatsu teaches wherein a second touch sensor (42) is carried on a second side of the housing (see col.2, lines 46-48).

As to claim 25, note the discussion of Hinckley above Hinckley do not teaches the first side is one of a left, right, top, bottom, and wherein the second side is one of a left, right, top bottom. Wakamatsu teaches wherein the first side is a left, right, top, bottom, and wherein the second side is one of a left, right, top bottom (see Fig.1 and col. 2, lines 46-48).

Response to Arguments

8. Applicant's arguments filed 06/28/2007 have been fully considered but they are not persuasive.

On page 11, paragraph 2 the applicant argues that Hinckley does not describe or suggest transmitting a subset of touch sensors of a plurality of touch sensors of the electronic device nor correlating the subset of touch sensor contact information to a predetermined grip. Hinckley clearly teaches transmitting a subset of touch sensors of a plurality of touch sensors of the electronic device (see [0024]) nor correlating the subset of touch sensor contact information to a predetermined grip (e.g., ...the mobile device determine if it is currently held..., see [0026]).

On page 11, paragraph 3 the applicant argues that Hinckley fails to disclose determining an operational mode indicated by the correlated predetermined grip.

Hinckley teaches determining an operational mode indicated by the correlated predetermined grip (see [0029]).

On page 12, paragraph 2 the applicant argues that Hinckley fails to disclose, teach or suggest all of the features of independent claim 1 and similarly independent claims 18, 21 and 22. Hinckley clearly teaches all of the features of independent claim 1 and similarly independent claims 18, 21 and 22.

On page 12, paragraph 4 the applicant argues that Hinckley does not disclose all of the features of independent claim 18 or independent claim 22. Hinckley clearly teaches all of the features of independent claim 18 or independent claim 22.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2629

Inquiries

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL TSEGAYE whose telephone number is 571 270-1715. The examiner can normally be reached on Monday-Friday, 8:005:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHANH NGUYEN can be reached on 571 272 7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel Tsegaye
08/21/2007


AMARE MENGISTU
SUPERVISORY PATENT EXAMINER